

Lincoln University Wetland Restoration Project

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Soil and Water Conservation Program

Water Protection Forum

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Project Background

- Restore a 12-acre wetland adjacent to the Moreau River on LU's George Washington Carver Farm.
- Federal Funding provided by the FY12 EPA Section 319 Nonpoint Source Implementation Grant
- Project Period: July 15, 2015 – December 31, 2016

Objectives

- Demonstrate methods of improving water quality and preventing soil erosion
- Educate the public on wetlands
 - Groundwater recharge
 - Flood Control
 - Phytoremediation
 - Wildlife/fish habitat
- Provide opportunity for classroom and laboratory instruction
- Conduct research on the colonization and establishment patterns and chronologies of plants and wildlife

Objectives

- Restore a disappearing habitat critical to migratory and resident populations of wildlife
- Recycle groundwater used in aquaculture production and research facility
- Demonstrate alternative uses for marginally productive farm land
- Provide a model to other public entities to augment their environmental impact

Methods Employed

- Reservoir Construction and Wetland Restoration
- Native Plant Establishment
- Tours
 - Student
 - Political
 - Farmer/Producer
- Pre and post bird species cataloging
- Pre and post plant inventory

Budget

319 Federal	Nonfederal Match	Other Federal
\$36,793	\$11,390	\$2,893

Total Project Cost: \$51,076

Project Partners

- Lincoln University
- USDA-NRCS
- Missouri Department of Conservation
- Three Rivers Electric Cooperative
- Ducks Unlimited
- Hamilton Native Outpost
- MDNR Water Resources Center
- LU Agriculture and Wildlife Clubs



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES



Lincoln University / Carver Farms
Wetland Restoration
T44N, R11W, Sect. 28 Cole Co., MO



Legend

- Lincoln_Carver_Wetland_Reservoir
- Lincoln_Carver_Wetland

410 205 0 410 Feet



Pre-Construction



West View



East View

Construction



Water Control Structure



December Flooding



Wetland Planting

- March 29, 2016
- Lincoln University Students from the Department of Agriculture and the Wildlife Club
- Planted 300 obligate wetland plants



Wetland Plants

- Shining Blue Star
- Marsh/Swamp Milkweed
- New England Aster
- Globe Sedge
- Buttonbush
- Silky Dogwood
- Horsetail
- Joe Pye Weed
- Sneezeweed
- Rose Mallow
- Southern Blue Flag
- Soft Rush
- Cardinal Flower
- Spatterdock
- Switch Grass
- Pickerel Weed
- Orange Coneflower
- Sweet Coneflower
- Arrowhead/Duck Potato
- Lizards Tail
- Great Bul Rush
- Prairie Cord Grass
- Curlytop Ironweed

Wetland Planting



Wetland Planting



Monitoring Station



Parameters Monitored

- Groundwater Level
- Precipitation
- Air Temperature
- Relative Humidity
- Barometric Pressure
- Wind Speed/Direction
- Solar Radiation

Current Conditions



Current Conditions



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MDNR Water Resources
Center
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Lincoln University Carver Farm
Manager

Questions?

